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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,160	08/10/2001	Manabu Yoshimura	33035M077	4910

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EXAMINER

LIN, TINA M

ART UNIT PAPER NUMBER

2874

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/913,160

Applicant(s)

YOSHIMURA ET AL.

Examiner

Tina M Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2003
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This Office action is responsive to applicant's communication submitted on 22 May 2003. The Examiner notes the corrections of the minor informalities in the Abstract and Specifications.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,127,074 to Watanabe et al., and further in view of U.S. Patent 5,841,924 to Mugiya et al. In Figure 1, Watanabe et al. teaches an optical semiconductor module comprising a mounting member 32 with an element mounting surface 32 and contact surface, a first tubular member 12a, a second tubular member 12b, an optical semiconductor element 34, and an optical waveguide 44 optically coupled to the semiconductor element. Additionally, it can be observed from Figure 1, a third member 16 having an opening for the optical fiber to extend through the first and second end faces of the ferrule 42. Furthermore, Watanabe et al. teaches an optical semiconductor module with a lens 22 between a waveguide and semiconductor element and where this semiconductor element is a light emitting element. (Column 3 Line 30) Finally, Watanabe et al. teaches an annular connecting portion to surround the optical axis of the optical semiconductor element. (Column 3 Lines 52-65) But Watanabe et al. fails to disclose the outer

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edge of a first portion to be located inside the edge of the mounting member. Watanabe et al. however does disclose of the first portion to line up with the edge of the mounting member. However, Mugiya et al. discloses a semiconductor device with a mounting member 13/14, a first tubular member 16, a second tubular element 17, an optical semiconductor element 12, and an optical waveguide 19 coupled to the semiconductor element. Mugiya et al. also discloses the outer edge of the first end portion to be located inside the edge of the mounting member. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have altered the outer edge of a first portion to be located inside the edge of the mounting member for the purpose of acquiring the most optimal fit of the semiconductor module in a applications as well as downsizing the first member. Watanabe et al. also fails to specifically disclose a first member that is resistance-welded to the mounting member at an annular portion to secure the semiconductor element, but Watanabe et al. does disclose resistance welding of components in the semiconductor module. However, Mugiya et al. discloses a mounting member 13/14 and a first tubular member 16 to be resistance-welded with the optical element and semiconductor element to be in optical alignment along the same axis. By welding the components together in alignment, this ensures the securing of the semiconductor element. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have is resistance-welded the first tubular member to the mounting member at an annular portion to secure the semiconductor element.

Claims 5-6 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,127,074 to Watanabe et al. in view of U.S. Patent 5,841,924 to Mugiya et al. as applied to claims 1 and 4 above, and further in view of U.S. Patent 5,661,834 to Watanabe et al.

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U.S. Patent '074 and Mugiya et al. disclose all as applied to claims 1 and 4 above but fails to disclose a sleeve arranged in a depressed portion of second member and another ferrule to be inserted in the second portion. However, U.S. Patent '834 does disclose an optical semiconductor module that comprises a ferrule to be inserted into a sleeve 13. In Figure 1, it can also be seen that the sleeve 13 is arranged on a depressed portion of the housing. Since it is well known in the art to use a sleeve for the purpose of additionally protecting and supporting an optical fiber, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have included the use of a sleeve or an additional ferrule over the original ferrule for the purpose to better support and protect the fiber. Also, it is also well known in the art to use a depressed portion of a housing/member to create a shoulder in order for the sleeve or additional ferrule to be arranged on. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a depressed portion of a housing to arrange a sleeve on.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,127,074 to Watanabe et al. in view of U.S. Patent 5,841,924 to Mugiya et al. as applied to claim 1 above. Watanabe et al. and Mugiya et al. discloses all of claim 1 and the mounting member 32 with a center axis perpendicular to the reference surface, but fails to disclose a mounting member having a diameter of not more than 4mm. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a mounting member of an appropriate size for the desired size of the overall module.

Applicant's arguments filed 22 May 2003 have been fully considered but they are *not* persuasive. Examiner agrees with the argument that Watanabe et al. does not disclose "an outer

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edge of said first end portion being located inside of an edge of said mounting member”.

However, Watanabe et al. in view of Mugiya et al. does suggest “an outer edge of said first end portion being located inside of an edge of said mounting member”. The corresponding 35 U.S.C. 103(a) rejection is made above.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (703) 305-1959. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TML *TML*  
July 1, 2003

*John D. Lee*  
John D. Lee  
Primary Examiner